

Applicants: Nathan Ellis, James German, and Joanna Groden
Serial No.: 09/753,143
Filed: January 2, 2001
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REMARKS

Claims 11-12, 14-17, 19-20 and 86-93 are pending in the subject application. By this Amendment, applicants have amended claims 11 and 86-93 to better clarify the subject invention. The amendments place the application in condition for allowance or in better form for appeal. Accordingly, upon entry of this Amendment, claims 11-12, 14-17, 19-20 and 86-93 will be pending and under examination.

Applicants maintain that the amendment to the claims do not raise an issue of new matter. Support for the amendments to claim 11 can be found *inter alia* in the specification as originally filed at least on page 7, lines 27-34, page 8, lines 1-7, page 20, lines 6-8, and page 27, line 9-11. In claim 86, support for "insertion of A after nucleotide 1610" can be found *inter alia* in the specification as originally filed on page 35, footnote "g" to Table 1 and support for replacement of nucleotides ATCTGA at position 2281-2286 with nucleotides TAGATTC can be found *inter alia* in the specification as originally filed on page 35, footnote "i" to Table 1. Support for the amendments to claims 86-93 can be found in the previous version of the claims. Accordingly, entry of the Amendment is respectfully requested.

New Matter Rejections

The Examiner indicated that the Specification contained new matter where applicants had previously amended the specification to complete citations that the Examiner had previously objected to as incomplete. Applicants have hereinabove amended the Specification to delete the citations in question, thereby obviating this objection to the Specification.

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The Examiner rejected claims 86, 89, and 91 under 35 U.S.C. §112, first paragraph, because the Examiner did not find support in Table 1 for the insertion of A after nucleotide 1610 or for nucleotides TAGATTC. Applicants respectfully point out that support for these features can be found in footnotes “g” and “i” of Table 1 on page 35 of the Specification as originally filed.

In view of the amendments and remarks made herein above, applicants respectfully request that the objections and rejections based on new matter be withdrawn.

Rejections under 35 U.S.C. §112, Second Paragraph

The rejection of claims 11, 12, 14-17 and 19-20 under 35 U.S.C. §112, second paragraph is maintained. The Examiner indicated that the term “BLM gene” renders that claims indefinite and that without limitation on the number of mutations, a “mutated BLM gene” can be virtually any gene. In addition, previously added claims 86-93 have been added to these rejections. The Examiner indicated that the phrase “characterized by” in claims 86-93 does not particularly define the mutated BLM gene.

Applicants respectfully traverse these rejections.

Applicants note that Claim 11 as amended sets forth the amino acid sequence encoded by the *BLM* gene and recites that “the mutated *BLM* gene is located between loci D15S1108 and D15S127 of human chromosome 15.” Furthermore, on page 8, lines 1-6, the Specification defines “mutated *BLM* gene” as “the mutated form of the normal *BLM* gene, which contains one or more deletion, insertion, point or rearrangement mutations, or a combination thereof, that may result in loss or alteration of activity of the gene product expressed by the mutated *BLM* gene.” Claims 86-93, as amended, which depend from and thus further limit Claim 11, do not recite the phrase “characterized by.”

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Applicants maintain that the amended claims particularly point out and distinctly claim the subject matter that applicants regard as the invention. Accordingly, reconsideration and withdrawal of this ground of rejection are respectfully requested.

Rejections under 35 U.S.C. §112, First Paragraph

The rejection of claims 11, 12, 14-17 and 19-20 is maintained under the written description and enablement requirements of 35 U.S.C. §112, first paragraph. The Examiner indicated that applicants' previously filed amendment does not limit the character of the mutated *BLM* gene in any way. The Examiner even asserted that the mutated *BLM* gene need not be related to Bloom's syndrome in any way. In addition, previously added claims 86-93 have been added to these rejections. The Examiner indicated that the phrase "characterized by" in claims 86-93 does not define the overall structure of the mutant gene detected in the method.

Applicants respectfully traverse these rejections. Applicants refer the Examiner to the remarks made in the preceding section of this reply. In addition, applicants respectfully further note that on page 8, after the definition of the "mutated *BLM* gene" the Specification recites on line 6-7, "[a] subject who inherits a copy of the mutated *BLM* gene on each chromosome 15 has clinical BS." Accordingly, the Specification clearly teaches that the mutated *BLM* gene is related to Bloom's syndrome. Applicants maintain that one skilled in the art would understand that the inventors at the time the application was filed had possession of the claimed invention, that the teachings of the specification enable the skilled artisan to practice the claimed invention without undue experimentation, and that the amended claims thus fulfill the written description and enablement requirements of 35 U.S.C. §112, first paragraph. Accordingly, reconsideration and withdrawal of these rejections are respectfully requested.

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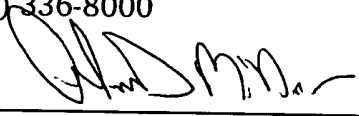
CONCLUSIONS

In view of the amendments and remarks made hereinabove, applicants respectfully request reconsideration and withdrawal of the objections and rejections set forth in the September 26, 2003 Final Office Action and earnestly solicit passage of the pending claims to allowance. If there are any minor, remaining matters that prevent allowance of the subject application, applicants request that the Examiner telephone the attorneys indicated below.

No fee is deemed necessary in connection with the filing of this Amendment. However, if any fee is required to preserve the pendency of the subject application, authorization is hereby given to charge the amount of any such fee to Deposit Account No. 01-1785.

Respectfully submitted,
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